

REMARKS

This responds to the Office Action dated January 13, 2004.

Claims 1-8, 12-20, and 24 were rejected. Claims 21-23 were allowed. Claims 10 and 11 were objected to.

Claim 10 has been revised so as to be placed in independent form, so as to include the limitations of its parent claims. This claim should now be in condition for allowance.

Claim 11 depends from claim 10 and should be allowable for the same reasons as claim 10.

The independent claims of the application that were rejected in the previous Office Action have now been amended. Favorable reconsideration of those claims and their dependent claims is requested.

Claim Rejections – 35 U.S.C. § 112

Claims 12 and 13 were rejected as indefinite since the limitation “said central shafts” at line 10, claim 12, has insufficient antecedent basis. This expression in claim 12 has been amended. Accordingly, applicant submits that claim 12 should now avoid rejection under § 112.

Claim Rejections – 35 U.S.C. § 102

Claims 1, 2 and 24 were rejected as being anticipated by European Patent 0 819 382 to Janssen. Janssen discloses a conveyance disk 10 having slits 12 fixed therein. The slits do not rotate with respect to the conveyance disk, and are stationarily associated with the disk. The arrangement according to Janssen, the items 38, 40, 46 and 48, as well as the guide 42, are attached to a frame of the arrangement and not to the wheel 10. Fig. 2 seems to suggest that items 38, 40, and 46, 48 are supported by the wheel 10, but if that were the case, then they would not be able to function for more than one receiving space 12, because they would co-rotate with the wheel 10. Considering the description of Janssen, it is clear that these parts will be relatively stationary with respect to the wheel. Janssen's disk rotates as indicated by arrow 56 and bird legs are inserted into the slits and are carried by the disk from one conveyor to another conveyor, progressively changing their rotational orientation.

The independent claims adequately distinguish over Janssen, so as to avoid rejection based on § 102(b).

For example, claim 1 sets forth the transfer wheel having a perimeter, the transfer wheel provided with carcass holders at the perimeter that revolve about the vertical axis of the transfer wheel, and *with the carcass holders being rotatable with respect to the transfer wheel*. Also, the holder orientation means is configured for rotating the carcass holders with respect to the transfer wheel and for equalizing the rotational orientation of the carcass holders from receipt of the carcasses on the transfer wheel to the discharge of the carcasses from the wheel. This is not disclosed or suggested or made obvious by Janssen. Indeed, this provides a different function than that of Janssen. Janssen's carcasses are inserted into slits 12 that hold the carcasses non-rotatable with respect to the conveyance disk 10. This causes the carcasses to be progressively reoriented as they travel with the perimeter of the conveyance disk. Applicant's invention of claim 1 is specifically arranged to deliver the carcasses at the same rotational orientation of the carcasses from the receipt to the delivery of the carcasses. This is not disclosed by Janssen, who progressively changes the rotational orientation of the carcasses and the carcass holders (the slits 12 in Fig. 1) as they move from one conveyor to the other conveyor about the conveyance disk.

Claims 2-8 depend from claim 1, and include the same limitations thereof. Claim 2 specifies that the orientation means is adapted for keeping the rotational orientation of the carcass in the holder constant throughout the transport on the transfer wheel. This is not shown by Janssen. Janssen progressively changes the rotational orientation of its carcasses as the carcasses progress about the conveyance disk 10.

Claim 24 sets forth the orientation control means being responsive to the rotation of the transfer wheel *for rotating the bird holders with respect to the transfer wheel* and for equalizing the rotation orientation of the carcass holders from receipt of the carcasses on the transfer wheel to the discharge of the carcasses from the transfer wheel. Janssen does not disclose this. The Janssen carcasses maintain their fixed positions on the conveyance disc 10, causing them to be progressively reoriented as the conveyance disk rotates. Indeed, Janssen does not provide the same result as that of applicant's invention, whereby the applicant's invention rotates the bird holders so as to equalize the rotational orientation of the carcasses from receipt to discharge.

Claim 12 was rejected under § 102(b) as being anticipated by Meyn U.S. 4,574,428, Hobbel, et al. U.S. 5,453,045, and Veraart EP Patent 736,255.

Claim 12 sets forth the orientation means being responsive to the rotation of the transfer wheel for rotating each of the holders about its respective central shaft and with respect to the transfer wheel during the transport of the holders by the transfer wheel from the first overhead conveyor to the second overhead conveyor. This is not disclosed in any of the three applied references. Indeed, the applied references do not provide the same result. For example, Meyn has spaced slots 54 that cannot rotate with respect to the transfer wheel. With respect to the rejection based on Hobbel, et al., Hobbel, et al. discloses a transfer wheel 15 including a base plate 92 and a perimeter ring 94 provided with a slot 95, in which guide blocks 89 provided on each bird carrier 17 are accommodated. Clearly the bird carriers 17 are not rotatable about their respective shafts as well as with respect to the transfer wheel during the transport of the carriers 17. In addition, Veraart does not suggest anywhere in its description that the holders 23 be rotatably arranged with respect to the transfer wheel. See col. 5, beginning at line 41 and continuing through lines 46-48, in which it is indicated that the holder 23 comprises a plurality of rollers 31, indicating that the holder 23 itself cannot rotate with respect to the transfer wheel. Veraart does not disclose the holders 23 to be rotatable about their shafts 25.

Claim 13 sets forth the 1:1 ratio of rotation of the holders with respect to the transfer wheel. The applied references do not have any such rotation, and do not have a 1:1 ratio of rotation.

Claims 14-16 were rejected under § 102(b) as being anticipated by Berry 5,514,033. Claim 14 sets forth a shackle for suspending a poultry carcass by its legs. The shackle has accommodation spaces sized and shaped for receiving the legs of a carcass, such that the legs can be inserted into one end of the accommodation spaces, the carcass suspended by its legs from the holder and carried by the holder to another location, and then the legs removed from the other end of the accommodation spaces.

According to the rejection, Berry would disclose a holder 19 (Fig. 5A) and 19' (Fig. 6A) for suspended transport of poultry, provided with two substantially parallel accommodation spaces each forming a continuous open ended slit. However, despite similar numbers used in the specification and drawings of Berry, these items are constructed differently and have different

functions. Berry only discloses an open-fronted leg divider and restraining device 19. The specification describes the leg divider and restraint device 19 as:

On arrival at a second location 17 (Fig. 3), the legs of the birds slip through the gap between the two conveyors for engagement by open-front leg-divider and restraint device 19. From here the birds are taken up by the new (open-fronted) shackles 19' of an otherwise conventional shackle line 20, as shown in Fig. 7.

(Column 2, lines 51-57 of Berry U.S. Patent 5,514,033.)

As shown in Figs. 1A, 2A and 3A, Berry discloses a poultry handling assembly having two endless surface conveyors arranged side by side and adapted to move poultry from location to location. Berry's restraint device 19 is shown in Fig. 5A, and his open-ended shackle 19' is shown in Figs. 6A-D. Fig. 7 makes clear the same restraint device 19 is stationary, and the shackles 19' are holders for suspended transport of a poultry carcass. *The holders 19' are not provided with continuous open-ended slits*, as is clear from Fig. 6A.

Applicant's shackle utilizes the open ended accommodation spaces to load from one side and deliver from the other side. Berry requires the surface guide device to include an input belt 34 to be moved along and beneath the horizontally disposed device for containing the legs of the bird. The feet of the bird apparently will rest upon the belt, as opposed to having the legs of the bird suspended by an overhead poultry shackle. The distance between applicant's accommodation spaces at their one end are different for the distance therebetween at their other end. This enables the legs of the birds to be received and delivered at different spacing, and distinguishes over Meyn EP 1 038 443.

Claim 15 further sets forth the inclined turned end members arranged on either side of one end of the accommodation spaces to prevent unintentional backwards movement of the legs. This has the function of avoiding inadvertent removal of the legs from the open ends of the accommodation spaces while maintaining the bird on the horizontal portion of the holder. Meyn U.S. 4,574,428 illustrates a positioning wheel 24 that is sloped, without having a horizontal portion in combination with the inclined portions. For example, the wheel of Meyn is sloped

upwardly on one arc and downwardly on the opposing arc, so that the advantage of the upwardly sloped arc is lost when it revolves 180°.

Claim 16, dependent on 14, should be allowable for the same reasons as 14. In addition, claim 16 sets forth the inclined turned end members being arranged on either side of one end of the accommodation spaces to prevent unintentional backward movement of the legs out of the one end. This is not shown in the applied art.

Claim Rejections - 35 U.S.C. § 103

Claims 3-5 were rejected under § 103(a) as unpatentable over Janssen and further in view of Chapman 4,791,704. Chapman is used to modify Janssen, to disclose the holders being bearing mounted in the transfer wheel, to be rotatable about themselves about a vertical axis.

However, parent claim 1 sets forth the feature of the holder orientation means configured for rotating the carcass holders with respect to the transfer wheel. Chapman has its transfer wheel subdivided into sector members 7, with the sector members being spread apart on one side and gathered together on the other side. This is a different concept. The birds are continuously reoriented by Chapman as the sector members 7 rotate about the central axis. Neither Chapman nor Janssen disclose the holder orientation means configured for rotating the carcass holders with respect to the transfer wheel. Therefore, neither the structure or the function of applicant's claimed invention are anticipated or made obvious by the combination of Chapman and Janssen. Moreover, claim 3 refers back to claim 2, which includes the limitation of the orientation means adapted for keeping the rotational orientation of the carcass in the holder constant throughout the transport on the transfer wheel. Neither of the references accomplishes this.

Claim 3 adds the holders being bearing mounted in the transfer wheel. Chapman does not have a holder that is bearing mounted in the transfer wheel. Indeed, the transfer wheel of Chapman is not really a wheel, but is a plurality of divided sectors that, together, form a wheel-shaped structure with gaps between the sectors. There is no suggestion in Chapman or in the primary reference that the teachings of the references should be combined. Indeed, it is not understood how these references could be combined to meet the limitations of the claims.

Claim 5 includes the feature of the orientation means being adapted for rotating the holders in a 1:1 ratio with respect to the rotation of the transfer wheel. This is not disclosed in

either of the applied references. Chapman's holders, which would be interpreted as the sector members 7 of Fig. 5, move together for one portion of the arc of movement and then move apart for the other portion of the arc. The Chapman carcasses are received when the sectors are gathered and are discharged when the sectors are separated. This is not a 1:1 ratio from receipt to discharge of the carcasses as set forth in claim 5.

With regard to claim 6, Janssen is modified by Chapman to reject the claim. Neither of the references, individually or combined, disclose the limitations of the parent claim. Further, claim 6 sets forth the first orientation means for orienting the first of the holders and second orientation means for orienting the others of the holders, with the second orientation means operated by the first. There are no orientation means for rotating the holders with respect to the transfer wheel as set forth in applicant's parent claim. There is a complete absence of orientation means for equalizing the rotational orientation of the carcasses in Janssen, who has slits 12 (Fig. 1) which do not allow reorientation of the birds with respect to the conveyance disk 10. It is not understood how any reorientation means of Chapman could possibly be applied to Janssen to achieve the rotational orientation set forth in claim 6. Neither reference provides the same function, and there is no suggestion in either reference that it could be combined with the other reference to provide the function or the structure as set forth in the claims.

Claims 7 and 8 were rejected under § 103(a) as being unpatentable over Janssen as modified by Chapman and Stone, et al., and further in view of Hobbel, et al.. It is noted that claim 7 is dependent on claim 6, and claim 6 is dependent on claim 1. None of the references, individually or in any combination thereof show the features of claims 1 and 6. None of the references show a feature of applicant's invention, of reorienting the birds as they travel from the first conveyor to the second conveyor so as to discharge the birds from the transfer wheel in the initial rotational orientation.

Claim 8 depends on claim 7, which depends on claim 6, etc. Claim 8 sets forth the diameter of both driving disks being equal. However, Hobbel, et al. do not include the orientation means that is rotational with respect to the transfer wheel. The disclosure of a random driving mechanism in Hobbel, et al. does not mean that there is a suggestion in Hobbel, et al. or in any other of the applied references to add Hobbel, et al. to the combination. Even if so, this would be done with copious hindsight.

Claim 13 was rejected under § 103(a) as unpatentable over Meyn, Hobbel, et al., and Veraart, and further in view of Stone, et al. Claim 13 describes the orientation means adapted for 1:1 continuous rotation of the holder with respect to the transfer wheel. Again, the references do not disclose the concept of the birds maintaining their rotational orientation from the first conveyor to the second conveyor. As the birds rotate in the prior art references, they progressively change their orientation as they travel about the perimeter of the transfer wheel. That is not what applicant's claims set forth.

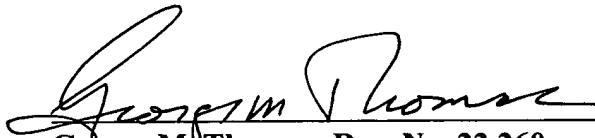
Claims 17-20 are rejected under § 103(a) as being unpatentable over Janssen or Meyn '428, Veraart, or Hobbel, et al., as applied to claims 1 and 12, and further in view of European patent 1 038 443 to Meyn. Claim 17 now depends from claim 14. As stated above, the applied references do not disclose the limitations of claim 14. Further, claim 17 adds to the limitations of claim 1 the accommodation spaces each forming an open-ended horizontal slit. Meyn discloses slots 54. However, Meyn does not set forth the missing elements of claim 1, such as the carcass holders being revolvable about the vertical axis of the transfer wheel, the carcass holders being rotatable with respect to the transfer wheel, and the holder orientation means configured for rotating the carcass holders with respect to the transfer wheel, and for equalizing the rotational orientation of the carcass holders from receipt of the carcasses on the transfer wheel to the discharge of the carcasses from the transfer wheel.

Allowable Subject Matter

The Office Action indicates that claims 21-23 are allowed. It is stated in the examiner's action that the limitation of the holder orientation means configured so that each carcass received by a holder maintains its rotational orientation as received at the carcass receipt point continuously until delivered to the carcass discharge point. Applicant has modified the claims,

which approximately set forth, with varying language in each claim, the concept of the carcasses being discharged in the same rotational orientation as received on the transfer wheel. Since this is not disclosed by the prior art, applicant respectfully submits that all the claims of the application are now in condition for allowance.

Respectfully submitted,


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